

DISCUSSION PAPER SERIES

IZA DP No. 16850

**Is Intent to Migrate Irregularly  
Responsive to Recent German Asylum  
Policy Adjustments?**

Bernd Beber  
Cara Ebert  
Maximiliane Sievert

MARCH 2024

## DISCUSSION PAPER SERIES

IZA DP No. 16850

# Is Intent to Migrate Irregularly Responsive to Recent German Asylum Policy Adjustments?

**Bernd Beber**

*RWI*

**Cara Ebert**

*RWI and IZA*

**Maximiliane Sievert**

*RWI*

MARCH 2024

Any opinions expressed in this paper are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but IZA takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The IZA Institute of Labor Economics is an independent economic research institute that conducts research in labor economics and offers evidence-based policy advice on labor market issues. Supported by the Deutsche Post Foundation, IZA runs the world's largest network of economists, whose research aims to provide answers to the global labor market challenges of our time. Our key objective is to build bridges between academic research, policymakers and society.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ISSN: 2365-9793

IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9  
53113 Bonn, Germany

Phone: +49-228-3894-0  
Email: [publications@iza.org](mailto:publications@iza.org)

[www.iza.org](http://www.iza.org)

## ABSTRACT

---

# Is Intent to Migrate Irregularly Responsive to Recent German Asylum Policy Adjustments?\*

We investigate the extent to which asylum policies that aim to deter individuals from migrating irregularly in fact do so. We specifically consider effects of Germany's recent and high-profile asylum policy adjustments, which include accelerated asylum decision processes, the prospect of asylum processing outside of Europe, the introduction of a payment card to replace cash benefits, and an extended waiting period for native-level benefits. In order to estimate effects of these policy measures on irregular migration intent, we implement a conjoint experiment with 989 men aged 18–40 in four cities in Senegal, a population of most-likely migrants in a country where irregular migration to Europe is highly salient. We find that offshoring the asylum process significantly and substantially lowers irregular migration intentions across nearly all types of subjects. Extending the waiting time for native-level benefits only has a small, marginally significant effect on intent, and no effect among the poorest subjects and those that are most motivated to migrate internationally. Neither reducing asylum processing times nor replacing cash benefits with a payment card significantly alters intentions. We note that the presence or absence of an effect does not resolve political and normative questions concerning these policies, which are beyond the scope of this particular study.

**JEL Classification:** F22, J61, K37

**Keywords:** asylum policy, irregular migration, conjoint experiment

**Corresponding author:**

Cara Ebert  
RWI – Leibniz-Institut für Wirtschaftsforschung  
Hohenzollernstraße 1-3  
45128 Essen  
Germany  
E-mail: [cara.ebert@rwi-essen.de](mailto:cara.ebert@rwi-essen.de)

---

\* We are grateful to Medoune Sall, Niklas Murken, Yogam Tchokni, and all members of the CTG survey team for conscientiously implementing the data collection underlying this research, and to Malte Becker and Tobias Heidland for their sample support. Data collection was financially supported by RWI's Economic Policy Lab "Climate Change, Migration and Development" and the Leibniz Collaborative Excellence funding program. We obtained ethics approval from the Comité National d'Ethique pour la Recherche en Santé (CNERS) at Senegal's Ministry of Health and Social Action (amended SEN22/76). This study was registered with a pre-analysis plan in the AEA RCT Registry (AEARCTR-0012573) prior to data collection.

# 1 INTRODUCTION

More than one million asylum seekers arrived in the European Union in 2023, with Germany as the “foremost destination” receiving about a third of these individuals (EU Agency for Asylum, 2024b). This is the first time this figure has been reached since 2015/2016, when the Syrian civil war led to approximately 1.2 million asylum applications annually in Europe (Eurostat, 2024a). The public and political discourse increasingly suggests that destination countries are strained by the influx of asylum applicants. In response, various European governments are debating and enacting policies to decrease these numbers, expedite asylum procedures, and more efficiently repatriate those whose applications are denied. These strategies notably aim to deter entry by individuals with minimal prospects of receiving asylum.<sup>1</sup>

We present evidence concerning the extent to which elements of such a strategy of deterrence can be effective. We focus on one specific and highly publicized set of measures that the federal and state governments of Germany adopted in late 2023 (Bund und Länder, 2023), including the following four key elements: First, accelerate the processing of asylum applications by three months for origin countries with low acceptance rates. Second, explore the possibility of processing asylum applications outside of Europe. Third, introduce a uniform payment card for asylum seekers’ benefits, reducing cash use. Fourth, delay eligibility for native-level benefits from 18 to 36 months. Press reports and statements to the media make clear that these measures have the dual purpose of managing asylum cases that are already in process as well as “deterrence” of individuals not yet en route to Germany (Zimmermann, 2023).

In order to test whether it is plausible to expect such deterrent effects, we designed and implemented a conjoint experiment with a random sample of 989 potential migrants in urban Senegal. Conjoint experiments have in recent years become a standard tool in the social sciences to evaluate factors involved in complex decision-making, perhaps especially so in the field of international migration.<sup>2</sup> Our design enables us to estimate effects of each distinct policy measure on expressed irregular migration intent. While conjoint experiments do not permit an estimation

---

<sup>1</sup>In line with common usage, we take the recognition of an asylum claim to mean any kind of permission to stay, whether as a refugee, under subsidiary protection, due to a deportation deferral, or because of an eligibility for asylum proper.

<sup>2</sup>See Hainmueller et al. (2014); Jeannet et al. (2021); Alrababah et al. (2023); Turkoglu and Weber (2023); Zhirkov and Smilan-Goldstein (2023); Becker et al. (2024) and others. In tandem a related body of literature on information provision and processing in migration decision-making has similarly grown in recent years (Tjaden and Dunsch, 2021; Beber and Scacco, 2022; Frohnweiler et al., 2022; Tjaden and Gninafon, 2022; Morgenstern, 2023; Bah et al., 2023; Frohnweiler et al., 2024).

of effects on migration behavior, intent generally precedes action (Tjaden et al., 2019). If we are unable to identify effects on intent, it becomes difficult to argue that a policy measure would nevertheless affect actual migration choices.

Senegal is a particularly relevant place to carry out the present study, for two reasons. First, the Western African route, which takes migrants to the Canary Islands, has seen the most dramatic recent growth in irregular border crossings of any of the routes terminating in Europe, with a year-over-year increase of 161 percent reported in January 2024 (Frontex, 2024). Senegalese individuals constituted the top nationality on this route in 2023. As this issue has threatened to become a theme during the 2024 Senegalese election campaign, President Macky Sall promised action to curtail the number of departures (Africanews, 2023). While irregular migration is a highly salient phenomenon in Senegal, and a strategy that subjects in this context can plausibly consider and reflect on, the absolute number of people departing is low. Relative to Senegal’s population, the share of individuals that have arrived irregularly in Europe in 2023 is well under one tenth of one percent, as is the case across most countries of origin.<sup>3</sup> Those who are most likely to attempt “l’émigration clandestine” are young men in urban areas, which constitute our sample.

Second, most individuals who arrive in Europe from Senegal and file an asylum application have their claim ultimately rejected. This is especially true for Germany, where in 2022 only 7 percent and in 2023 10 percent of the Senegalese applicants who received a decision in their case received any kind of permission to stay (Bundesamt für Migration und Flüchtlinge, 2023b,a).<sup>4</sup> While this figure has ticked up slightly, and the comparable acceptance rate for the EU as a whole lies significantly higher at 27 percent, Germany continues to designate Senegal as a “safe country of origin” (Bundesamt für Migration und Flüchtlinge, 2024).<sup>5</sup> This means the “default presumption” of an absence of persecution applies, i.e., applicants are

---

<sup>3</sup>In 2022, 4575 asylum applications in Europe were filed by Senegalese nationals (Eurostat, 2024b) and Senegal’s total population was estimated to be 17.32 million (United Nations, Department of Economic and Social Affairs, Population Division, 2022), for a rate of 0.026%. Even if the number of asylum seekers from Senegal tripled in 2023, the rate would be well below 0.1%. Many more people try to emigrate irregularly and fail to apply for asylum, but relative to Senegal’s population, the share is still small. In fact, the rarity of irregular migration in absolute terms poses a serious challenge for the systematic study of *potential* irregular migration (e.g., Bah et al., 2023).

<sup>4</sup>This includes both first and final decisions and corresponds to how the Federal Office for Migration and Refugees reports aggregate approval figures.

<sup>5</sup>The first-decision recognition rate, which the EU appears to report more commonly, is 17% (EU Agency for Asylum, 2024a). However, EU statistics show that 45% of final decisions in 2022 permitted Senegalese applicants to stay, and so the comparable overall rate is 27% (Eurostat, 2024c,d). Figures are for 2022, the last year with fully available data.

presumed to seek permission to stay for economic or other non-protected personal reasons. These are precisely the type of potential migrants that are meant to be deterred by the kind of policy measures at the center of our study.<sup>6</sup>

Our conjoint experiment produces three main results. First, it shows that offshoring the asylum application process to a third country such as Tunisia or Rwanda significantly reduces irregular migration intentions by more than a quarter of a standard deviation on average, an effect that is substantial and significant across almost all types of subjects. Second, doubling the period of waiting until state-provided benefits equal native entitlements from 18 to 36 months only has a small effect on irregular migration intent – significant only at the 10% level – and no effect among the poorest subjects and those that are particularly motivated to migrate internationally. Third, neither reducing asylum processing times nor introducing a payment card system for benefits significantly alters intentions to migrate irregularly. In fact we can be confident within the parameters of the experiment that the introduction of a payment card—a policy change much discussed in Germany—has no effect on subjects’ interest in irregular migration.

While our experiment focuses on a specific set of policy measures, the results have broad applicability. The hypothesis that institutional frameworks in destination countries influence migration patterns has sparked considerable debate among both the public and scholars. Critics argue that stricter policies merely exacerbate hardships for asylum seekers, who will migrate regardless of potential dangers and destitution. Conversely, some posit that lenient asylum policies and benefits for asylum seekers are a draw for a significant number of migrants.

A large body of research has aimed to identify the drivers of international migration, offering relatively robust evidence that factors like income levels and unemployment rates in destination countries, along with migrant networks and cultural similarities, are important “pull factors” (Beine et al., 2016). Few studies specifically address asylum flows. Hatton (2016) provides evidence that conditions in origin countries, including conflict and economic circumstances, are much more im-

---

<sup>6</sup>It is less clear how representative Senegalese subjects are of potential asylum seekers as a whole, in particular in terms of their sensitivity to changes in benefits. Asylum seekers from Senegal are not permitted to work in Germany due to Senegal’s designation as a “safe country of origin” (Bundesministerium für Arbeit und Soziales, 2024), so those intending to apply for asylum in Germany might be particularly sensitive to changes such as the introduction of a non-cash payment card. On the other hand, available disaggregated employment rates for those from “asylum origin countries” are higher for sub-Saharan African (for Eritrea 59%, Nigeria 52%, Somalia 42%) than for other origins (Iran 49%, Pakistan 48%, Iraq 36%, Syria 33%, Afghanistan 32%) (Bundesagentur für Arbeit, 2024, rates for Germany only, as comparable EU data is unavailable). This could imply that Senegalese will be less sensitive to policy changes, because they are less likely to anticipate relying on benefits. We suggest caution when extrapolating from our survey population to others.

portant than destination country policies: stringent access and processing policies may decrease asylum applications, but restrictive welfare policies appear to have minimal deterrent effect. [Di Iasio and Wahba \(2023\)](#) finds social networks to be the strongest pull factor for asylum seekers to the EU from 2008–2020, while employment bans have little effect.

The existing literature in this area predominantly utilizes aggregate migration statistics to assess the impact of implemented policies. Since changes in immigration and asylum policies often consist of packages of individual measures, and changes in origin countries may occur in parallel, it is difficult to gauge the absolute and relative effectiveness of specific actions. This is where a conjoint experimental design can be advantageous, as it permits us to isolate effects of specific well-defined policy levers. Results concerning these levers contribute to a pressing and highly politicized debate on irregular migration, one of the most polarizing issues in Germany and elsewhere in Europe, where right-extremist parties continue to gain voter support.<sup>7</sup>

The paper is organized as follows. Section 2 provides additional details concerning irregular migration to the EU and the specific policy measures adopted by Germany’s federal and state governments, which are the focus of the conjoint experimental design. We then discuss the sample, experimental design, and estimation strategy in Section 3, followed by estimation results in Section 4. We conclude and reflect on our findings in Section 5.

## 2 POLICY DISCOURSE ON IRREGULAR MIGRATION

Between January and November 2023, over one million asylum applications were filed in the EU27, Norway, and Switzerland, a level similar to that during the 2015–16 refugee crisis ([EU Agency for Asylum, 2024b](#)). Additionally, more than 4 million Ukrainians received temporary protection in EU countries after the Russian invasion of Ukraine in February 2022 ([EU Agency for Asylum, 2024c](#)).

As Europe’s most populous country and its largest economy, Germany has been by far the most important destination country for asylum seekers in Europe in recent years, receiving almost one-third of all applications submitted in 2023, or more than 350,000 people. In 2015 and 2016 the numbers were even higher with more than 470,000 and 745,000 people, respectively. Since 2022, an additional 1.1

---

<sup>7</sup>In Germany, government agencies have found the Thuringia, Saxony, and Saxony-Anhalt regional associations of the political party “Alternative für Deutschland” (AfD) as well as the party’s national youth association to be “definitely right-extremist” ([Tagesschau, 2023, 2024](#)). Opinion polls suggest an AfD vote share of 18–20% if German elections had taken place in February 2024 ([Statista, 2024b](#)).

million Ukrainians have received temporary protection status, straining available resources for hosting asylum seekers (Statista, 2024a).

Against this background, the German government decided in late 2023 to tighten its asylum policies. A commission consisting of the German chancellor and the heads of government of all 16 German federal states, which are in charge of organizing accommodation and welfare support for asylum seekers in Germany, issued a resolution on new policy measures (Bund und Länder, 2023). The resolution explicitly states that it aims to “reduce the number of people coming to Europe and Germany who have no prospect of being granted the right to stay, and to ensure that people with the right to stay are distributed throughout the EU in a spirit of solidarity” (Bund und Länder, 2023, 3). The agreement specifies a set of initiatives for the protection of European and German borders, migration deals with origin countries, improvements to accelerate the return process, and cost sharing between the federal and state governments. It also includes a set of policy measures regarding decision processes and government benefits for asylum seekers, which are the focus of this paper.

In this study, we closely consider four of the policy measures included in the resolution:

1. Speed up the asylum application decision process.

Asylum procedures for nationals of countries with recognition rates below five percent are to be accelerated, with first decisions to be issued after three instead of six months. Note that even if first decisions are issued quickly, the process until a final decision is reached can take many months: For Senegalese asylum seekers who were issued an unappealable decision in 2022, the average duration from first application to final decision was 28 months. For the purposes of the study, we therefore interpret a potential three-month acceleration of first-instance decision-making as an effective hypothetical processing time reduction from 28 to 25 months.

2. Issue a payment card, no cash for government benefits.

A uniform nationwide payment card is to be introduced, which will replace monthly cash payments for basic necessities upon registration as an asylum seeker. This is thought to reduce the administrative burden on local authorities and help ensure that benefit payments are in fact used for core necessities only.

3. Double the waiting period to receive basic government benefits at the same level as natives.



Asylum seekers will be automatically entitled to native-level basic government benefits after 36 instead of 18 months. During this waiting period, they are entitled to more limited support under the Asylum Seekers' Benefits Act only. One specific objective of this measure is to reduce incentives for secondary migration to Germany from other European countries.

4. Consider processing asylum applications outside of Europe.

The federal government will examine whether it is possible to carry out asylum procedures and determine any applicable protection status in third countries outside of Europe, while remaining in compliance with the Geneva Refugee Convention and the European Convention on Human Rights.

The extent to which these measures effectively deter potential asylum seekers that may consider migrating irregularly to Europe in general and Germany in particular is unclear. We now turn to a description of our experimental study that speaks to this question.

### 3 STUDY DESIGN

#### 3.1 Sample

We conducted the study from November 26 to December 6, 2023, with a sample of 989 subjects in four cities of Senegal: Dakar (N=341), Kaolack (N=223), St. Louis (N=203) and Ziguinchor (N=222). We focus on Senegal as an important country of origin for irregular migrants arriving in Europe at the time of our data collection. The four sampled cities are national and regional centers of migration. Dakar, Senegal's political capital and economic center, is situated on the western tip of Senegal and by far the country's largest city; Kaolack is a key regional hub in central Senegal's peanut basin; St. Louis and Ziguinchor are the largest cities in northern and southern Senegal, respectively, each in proximity to the coast.

All interviewed subjects are men aged 18–40, because this constitutes the demographic group in Senegal most likely to migrate. Their average age is 27, a quarter is married, 42 percent have completed secondary schooling or more, and 59 percent live in households that did not have enough food to eat at some point in the past 12 months. We recruited these subjects in two ways. First, in Dakar, St. Louis, and Ziguinchor, we followed up with subjects of a previous data collection conducted in these locations in 2022. These subjects were randomly sampled on the basis of a complete household listing within randomly selected study enumeration areas

Table 1: SAMPLE STATISTICS ON MIGRATION BEHAVIOR AND INTENT

	(1)				
	Mean	SD	Min	Max	N
<b>Migrated in past year</b>					
... domestically	0.267	0.44	0	1	989
... internationally	0.064	0.24	0	1	989
... to Europe	0.002	0.04	0	1	989
HH member migrated irregularly to Europe past year	0.081	0.27	0	1	989
Has at least one contact in Europe	0.669	0.47	0	1	986
No. of contacts abroad	3.841	5.84	0	56	986
No. of contacts in Europe	2.880	4.61	0	50	984
<b>Intent to migrate</b>					
... domestically (wants to)	0.537	0.50	0	1	989
... internationally (wants to)	0.824	0.38	0	1	989
... internationally (likely to)	0.424	0.49	0	1	989
... irregularly (interested)	0.280	0.45	0	1	989
... to Europe (likely to, preferred destination)	0.173	0.38	0	1	989
Prepared for international migration	0.585	0.49	0	1	989
No. of preparations	1.444	1.63	0	8	989

*Notes:* The table shows descriptive statistics of subjects’ migration behavior in the past year and their pre-treatment migration intentions. Intent to migrate was measured in different ways: WANTS TO refers to “How much, if at all, would you like to live in another country / in a place in Senegal outside of [city], either seasonally or for a longer time?” and is 1 if the response was “a fair amount” or “a lot”; LIKELY TO refers to “How likely do you think it is that you will actually move to another country within the next year?” and is 1 if the response is “somewhat likely” or “very likely”; INTERESTED refers to “How interested would you say you are in crossing the desert and the water / in going by boat to live in another country?” and is 1 if either question was answered with “a fair amount” or “a lot.” INTENT TO MIGRATE TO EUROPE is 1 if the subject is “likely to” migrate internationally and states a European country when asked “If you were to move to another country, where would you most want to live?” PREPARED FOR INTERNATIONAL MIGRATION is 1 if subject did any of the following preparations: has discussed plans with family members; has discussed plans with friends; has started to save money; has taken out a loan; has paid someone to help with leaving my village/city; has talked to a connection person / burgher; has taken an oath; has gotten a passport; started the process of getting a visa.

corresponding to neighborhoods (Becker et al., 2024). We recruited 291 subjects, so just under a third of our total sample, in this manner. Second, we recruited a new sample of 698 men across all four cities using a random walk and household selection procedure, again using neighborhoods as our primary sampling units (*quartiers* in Kaolack, St. Louis, and Ziguinchor, and *communes* in Dakar).

The sampled population is fairly mobile and international migration to Europe is a concretely discussed possibility for many. One third of subjects has migrated domestically and 6 percent has migrated internationally (see Table 1). The most prominent destination country is Mauritania, followed by other neighboring countries like Gambia, Guinea-Bissau, and Guinea. Migration experience to Europe is very rare among the interviewed subjects. Virtually nobody has migrated to Europe in the last year. Yet 8 percent of subjects live in households in which a household member has migrated or attempted to migrate irregularly to Europe in the last year and 67 percent know at least one person in Europe they could contact if they needed to.

Interest in international migration is salient in our sample: 82 percent would

like to live abroad and 42 percent say they are “somewhat likely” or “very likely” to “actually move to another country within the next year.” More than a quarter say they are interested “a fair amount” or “a lot” in migrating irregularly, across the desert (22 percent) or the sea (25 percent). Seventeen percent say they are likely to migrate with Europe as their preferred destination within the next year. Three-quarters of subjects interested in international migration have made some preparations, such as discussing their plans with family members (45 percent) or friends (36 percent). Twenty-three percent say they have discussed migrating with a connection person, a migration broker that would typically charge a fee upon departure (UNODC, 2013).

### 3.2 Conjoint experiment

We conducted a single-profile, rating-based conjoint experiment to assess the extent to which irregular migration intent is responsive to policy measures. Subjects were asked to complete three tasks, each of which consists of providing a migration intent rating given a single migration policy profile. Each profile contained five attributes. In addition to the four policy dimensions discussed above (asylum application processing time, application location, payment mode of government transfers, and waiting time until entitlement to native-level benefits), we added the chance of an asylum application being granted as a fifth attribute.<sup>8</sup> This adds another key element of destination country decision-making that informs migration choices, and—more importantly for the purposes of our study—it adds a benchmark for interpreting the effect sizes of other policy measures.

Each attribute has two randomly varying levels. For the policy measures of primary interest, these correspond to the status quo and the intended policy change. For the chance of asylum being granted, they correspond roughly to the probability that a Senegalese national’s asylum claim is accepted in Germany and the probability with which such a claim is accepted across the EU as a whole. The five

---

<sup>8</sup>The conjoint experiment and survey did not use the literal term “asylum” or “l’asile,” because pretesting in Senegal showed it to be confusing to respondents. Instead we ask about migrating irregularly, i.e., traveling to a destination country without that country’s prior approval, and then applying for any kind of permission to stay. While European and German descriptions generally refer to such arrivals as asylum seekers, only a very small share of those granted permission to stay (just 1.4% in Germany) actually receive this permission on the basis of a recognized claim to asylum (Bundesamt für Migration und Flüchtlinge, 2023a). Much more commonly, applicants receive refugee status (30.1%), subsidiary protection (52.7%), or a deportation deferral under the European Convention on Human Rights or due to a “significant concrete danger to life, limb or freedom” (15.9%). In fact, and confusingly, Germany’s standard initial “limited asylum application” explicitly *excludes* an application for asylum as defined by law (Bundesamt für Migration und Flüchtlinge, 2021).

Table 2: ATTRIBUTES AND LEVELS OF CHOICE EXPERIMENT

Attribute	Level 1	Level 2
Chance that application to stay after arriving irregularly is granted:	5 out of 100	30 out of 100
Time to decision about application:	25 months	28 months
Location of application process:	Apply upon arrival in Europe in the destination country and wait there for decision	Apply outside of Europe, e.g., in an African country such as Rwanda or Tunisia, and wait there for decision
Monthly government benefits to cover basic necessities during application process in destination country (up to ca. 410 Euro or 270 000 CFA):	Paid in cash	Paid on a prepaid payment card
Waiting period to receive basic government benefits at same level as natives (ca. 500 Euro or 330 000 CFA):	18 months	36 months

*Notes:* The table shows the different hypothetical policies for irregular migration in the destination country that are presented to the study subjects. The column “Attribute” indicates the policy type, and columns “Level 1” and “Level 2” present alternative configurations of the policy type.

attributes and their levels are presented in Table 2 and result in 32 hypothetical policy profiles.

We presented each participant with a randomly selected policy profile and then asked the participant to state his interest in migrating irregularly given the policy profile (“Given this set of policies, how interested would you be in trying to migrate irregularly to this country?”). Responses could range from 0 (“Not at all”) to 10 (“Very”). We repeated this task three times. In order to help subjects understand each policy profile, we used icons to visualize profile content, as shown in Figure S.1 in the Supplementary Materials. For each task, profile-relevant icons were shown on enumerators’ tablets and marked on printouts. Upon completion of all tasks, subjects received a short debrief. The complete script as implemented can be found on page S.1 in the Supplementary Materials.

### 3.3 Randomization and balance

We randomly assigned three treatment profiles to each subject. Assignment was stratified by city. We used a re-randomization algorithm to ensure balance in subjects’ age across all treatment profiles for subjects that had previously been interviewed. This only applies to about a third of our sample, as described in section 3.1. For most of our sample, we observed balance-relevant covariates only just prior to the experiment, and so treatment profiles are assigned using a completely randomized design. Random assignment of the fully articulated set of treatment profiles ensures that the random assignment of levels for any particular attribute is

exactly balanced across all other attributes, i.e., the randomly assigned levels are uncorrelated across attributes.

Each treatment profile is assigned at most once to each subject, i.e., subjects do not encounter the exact same profile multiple times. Overall and across subjects, each of the 32 treatment profiles is assigned roughly the same number of times. This also means that each attribute value appears with the same frequency.

Balance table [S.1](#) in the Supplementary Materials provides information on a range of descriptive characteristics for our sample and each specific treatment group and shows that these are in line with what we would expect under randomization. We see some significant imbalances in observable characteristics, but the sizes of these imbalances are small and their frequency is in line with expectations: Across all means comparisons performed in these tables, we observe 12 percent that indicate significant differences at the 90 percent level.<sup>9</sup> We will in any case allow for any of these characteristics to be included as control variables in our estimations below.

### 3.4 Estimation strategy

Each task is a separate observation, with each participant as a cluster of three rating decisions, which means that our maximum estimation sample size is 2967 observations in 989 clusters. Subjects could discontinue their participation at any time (e.g., after the first experimental task) or refuse to provide a migration intent rating upon seeing a policy profile, but we observe no such attrition in our data.

In order to estimate the effect of each potential policy measure, we regress migration intent on five indicator variables, one for each policy attribute. For ease of interpretation, we standardize the outcome variable to be mean-centered and have unit standard deviation. The reference category for each policy attribute indicator of interest is the status quo policy, and the coefficient on each indicator captures the difference in intent effected by the proposed change in policy. As described in our pre-analysis plan, we include randomization strata fixed effects, prior irregular migration intent, and any covariates that are double-lasso selected from among a large set of additional attributes measured prior to the experiment.<sup>10</sup> Double-lasso

---

<sup>9</sup>Imbalances appear to cluster within certain assigned profile attributes. This is due to the fact that subject characteristics such as age, marital status, and number of children are highly correlated, so that if treatment groups are imbalanced with respect to one such attribute by chance, they are more likely to be imbalanced with respect to other correlated attributes as well. Simulations that take into account these empirical patterns of correlations show that in a completely randomized design the probability of observing at least as many significant differences as we do in table [S.1](#) is 20%, so well within the range of what we could expect to observe.

<sup>10</sup>Measures presented in tables [1](#) and [S.1](#) figure in the double-lasso model, provided they vary at least minimally ( $\leq 99\%$  are same-valued). In some cases we dichotomize variables for presentation

selection balances gains from including relevant covariates against losses of degrees of freedom. Standard errors are clustered at the participant level. Our estimation equation then is

$$Y_{i,k} = \alpha + \sum_{p=1}^5 \beta_p Policy_{p,i,k} + X_i \beta + \varepsilon_i, \quad (1)$$

where  $Y_{i,k}$  is the expressed irregular migration intent of individual  $i$  in task  $k$ ,  $Policy_{p,i,k}$  are the policy indicators,  $\beta_p$  coefficients are our estimands, and  $X_i$  refers to a set of covariates that include a pre-treatment measure of the outcome variable, strata indicators and any other double-lasso selected variables.

We report the results of two-sided t-tests for all hypotheses. In the case of missingness in covariates, we impute mean or zero values and use the missingness-indicator method, as described in [Zhao and Ding \(2022\)](#).<sup>11</sup>

## 4 RESULTS

### 4.1 Knowledge concerning asylum

Policy measures such as those by the German government build on the assumption that potential migrants are well-informed about asylum procedures and regulations. Only then can asylum policies substantially affect migrant decision-making and can have a deterrent effect. In [Table 3](#) we present subjects’ knowledge and beliefs about asylum procedures in Europe, from which we draw three insights.

First, subjects’ estimates of the probability of being allowed to stay in Europe without prior approval by the destination country varies substantially. The actual average EU-wide approval rate was 27 percent in 2022.<sup>12</sup> The median response in our data is 30–40 percent, not far off the mark. But one third of study subjects believes that more than half of the individuals arriving irregularly from Senegal in

---

in [tables 1](#) and [S.1](#), but keep them in their original ordinal format for double-lasso selection (e.g., intent to migrate, which ranges from 1 to 4). Each variable enters the double-lasso together with an indicator for missingness in that variable, if applicable, and we include both in our estimations of interest if either is selected. The final set of selected covariates includes age, an indicator for household heads, marital status, number of children, and intent to migrate internationally, as well as the missingness indicator for each of these variables.

<sup>11</sup>For our main analyses, we include all completed tasks. We anticipated in our pre-analysis plan that some subjects may not engage with each policy profile as thoroughly as intended, and we recorded the time subjects took to consider each profile and select an intent rating. We report results from estimations where we split the sample into tasks where subjects spent above and below certain duration thresholds in [Table S.2](#) in the Supplementary Materials. Key results concerning our policy attributes of interest are in some cases attenuated but largely persist even with low-intensity engagement.

<sup>12</sup>This includes 17% of first decisions and 45% of final decisions ([Eurostat, 2024c,d](#)).

Table 3: BELIEFS ABOUT ASYLUM

	Full sample			Subsample: High likelihood to migrate		
	Mean	SD	N	Mean	SD	N
<b>How many in 100 are allowed to stay?</b>						
0-5	0.06	0.23	2967	0.03	0.17	513
5-10	0.11	0.31	2967	0.10	0.30	513
10-20	0.13	0.33	2967	0.12	0.32	513
20-30	0.10	0.30	2967	0.08	0.27	513
30-40	0.06	0.25	2967	0.06	0.25	513
40-50	0.10	0.30	2967	0.07	0.26	513
50-60	0.08	0.28	2967	0.09	0.29	513
60-70	0.03	0.16	2967	0.03	0.17	513
70-80	0.05	0.21	2967	0.06	0.25	513
80-90	0.04	0.19	2967	0.05	0.21	513
90-100	0.10	0.30	2967	0.17	0.38	513
Don't know	0.15	0.36	2967	0.13	0.34	513
<b>Eligible for state-benefits as asylum seeker?</b>						
Yes	0.43	0.50	2967	0.53	0.50	513
No	0.43	0.50	2967	0.35	0.48	513
Don't know	0.14	0.34	2967	0.12	0.33	513
<b>Differences in benefits across countries?</b>						
Yes	0.46	0.50	2967	0.45	0.50	513
No	0.27	0.44	2967	0.33	0.47	513
Don't know	0.28	0.45	2967	0.22	0.42	513
<b>In which country are benefits highest?</b>						
Spain	0.40	0.49	1353	0.55	0.50	231
France	0.16	0.36	1353	0.10	0.31	231
Italy	0.10	0.29	1353	0.10	0.31	231
Germany	0.10	0.30	1353	0.08	0.27	231
United Kingdom	0.04	0.20	1353	0.00	0.00	231
Belgium	0.02	0.12	1353	0.00	0.00	231
Switzerland	0.02	0.14	1353	0.00	0.00	231
Portugal	0.02	0.15	1353	0.01	0.11	231
Sweden	0.01	0.08	1353	0.03	0.16	231
Denmark	0.00	0.05	1353	0.00	0.00	231
Poland	0.00	0.05	1353	0.00	0.00	231
Austria	0.00	0.05	1353	0.00	0.00	231
Other	0.00	0.07	1353	0.00	0.00	231
Don't know	0.13	0.34	1353	0.13	0.34	231
<b>Preferred country of destination in Europe</b>						
Spain	0.33	0.47	2967	0.47	0.50	513
France	0.23	0.42	2967	0.19	0.40	513
Italy	0.11	0.31	2967	0.09	0.29	513
Germany	0.10	0.30	2967	0.12	0.32	513
United Kingdom	0.09	0.29	2967	0.01	0.11	513
Switzerland	0.04	0.18	2967	0.02	0.15	513
Belgium	0.02	0.15	2967	0.01	0.11	513
Portugal	0.01	0.11	2967	0.01	0.11	513
Sweden	0.01	0.08	2967	0.02	0.13	513
Other	0.02	0.15	2967	0.01	0.08	513
Don't know	0.04	0.19	2967	0.02	0.13	513
<b>Why?</b>						
I know people there	0.44	0.50	2820	0.59	0.49	495
There are many other migrants from Senegal	0.46	0.50	2820	0.51	0.50	495
There are many migrants in general	0.24	0.43	2820	0.19	0.40	495
Because of the language	0.16	0.36	2820	0.12	0.33	495
Good income generation opportunities	0.41	0.49	2820	0.40	0.49	495
High level of government benefits for asylum seekers	0.11	0.31	2820	0.10	0.30	495
It is a safe country for migrants	0.24	0.43	2820	0.22	0.42	495

*Notes:* The table shows descriptive statistics (means, standard deviations, and counts) of subjects' pre-treatment beliefs about asylum acceptance rates and government transfers to asylum seekers in Europe. Results for the full sample are shown in (1) and for the subsample that are "somewhat" or "very likely" to migrate to Europe next year in (2). Only subjects who think there are differences in benefits are asked in which country benefits are highest.

Europe are permitted to stay, and about one third place this figure at or below 20 percent.

Second, less than half of our subjects are aware that asylum seekers are eligible for state benefits in Europe. Further, less than half believe that these benefits differ across countries and a quarter say they don't know about differences in benefits across countries. These numbers suggest that the European landscape of state support available to asylum seekers is not ubiquitously known in origin countries. This also applies to subjects that said they are likely to migrate to Europe in the next year and whom we would expect to be particularly well-informed (Table 3, columns 4 to 6).

Third, subjects that are aware of differences in benefits across countries largely think that Spain offers the highest benefits. Spain does in fact have one of the most generous support schemes for asylum seekers (Hodali and Prange de Oliveira, 2018). Some awareness of a history of relative Spanish generosity is not surprising, given that Senegalese irregular migrants on the Western African route enter Europe through Spain. Germany also provides comprehensive benefits and, like Spain, access to native-level benefits after a waiting period, but only 10 percent of subjects believe Germany's system to be the most generous. Indeed a larger share (16 percent) say benefits in France, which are actually more circumscribed, are highest. Subjects' beliefs appear more aligned with actual benefit levels for the UK, which provides limited benefits and was selected as highest-benefit country by just 4 percent of subjects. Given that benefit levels are genuinely difficult to compare, even for researchers (Deutscher Bundestag, 2023), these figures suggest that subjects perform reasonably well overall when asked about benefits for asylum seekers in Europe.

In any case, our data also shows that the main reason for preferring a particular destination are not government benefits, but migrant networks and general income generation opportunities. In an open-ended question asking about subjects' preferred destination country in Europe, Spain is the modal response. Yet only 9 percent of those that select Spain say government benefits play a role when choosing the best country for migrants. This pattern is similar for other preferred destination countries. Ten percent of subjects say Germany is their destination of choice, but only 14 percent of those say government benefits are a reason for this. Government benefits hence seem to play only a minor role in the destination choice when migrating irregularly to Europe.

Overall these descriptive findings paint a mixed picture. On the one hand, the median respondent is reasonably well-informed about asylum chances, and many



subjects correctly identify particularly generous support schemes for asylum seekers in different European countries. On the other hand, many others remain unaware that asylum seekers receive any benefits at all, also among those who are likely to migrate to Europe within the next 12 months. We take from this that asylum policy adjustments may affect potential migrants' beliefs and decision-making, in some respects and for some populations. However, momentous average impacts are unlikely, especially because few indicated government benefits as a reason for choosing a destination country.

## 4.2 Main effects

We now turn to the results of the conjoint experiment displayed in Table 4. We show three specifications: First, a model without any covariates beyond the treatment group indicators, then one that includes a pre-conjoint outcome measure and indicators for strata used during randomization, and finally our preferred specification that additionally incorporates a set of double-lasso selected variables. Given our randomized design, the main advantage of including covariates are potential efficiency gains, and indeed we see small decreases in standard errors as we move across columns. Coefficients also vary slightly but are consistent across columns, again as we would expect given the study design.

Changes in the location of the asylum application process have the strongest effect on reported irregular migration intentions. On average subjects' intent rating decreases by 0.28 standard deviations if the destination country was to process their asylum claim in a third country outside of Europe, such as Tunisia or Rwanda. A similarly negative, but much smaller and only marginally significant effect can be observed with respect to an increase in the time asylum seekers must wait to be entitled to state benefits at the same level as natives. Moving from 18 to 36 months decreases migration intent by 0.06 standard deviations, a magnitude of less than a quarter of the effect of offshoring the processing of asylum claims. However, a three-month reduction in asylum processing times and disbursing benefits by way of a payment card instead of cash have no significant effect on irregular migration intent. Given that the introduction of a payment card has generated intense and controversial public debate in Germany, it is particularly notable that our results suggest an entirely negligible effect of such a card on expressed intent.

We can benchmark these potential effects of recent German policy adjustments against the effect of 0.09 standard deviations of a change in the asylum acceptance rate from 5 to 30 percent. The effect of displacing the processing of asylum claims is three times as large, whereas the effect of extending the waiting time for benefits

Table 4: RESULTS OF THE CONJOINT EXPERIMENT

Irregular migration intent	(1)	(2)	(3)
Chance of asylum	0.117*** (0.035)	0.102*** (0.033)	0.088*** (0.032)
Time to asylum decision	0.036 (0.038)	0.028 (0.035)	0.028 (0.035)
Location of asylum application	-0.269*** (0.045)	-0.271*** (0.042)	-0.276*** (0.041)
Benefit payment mode	-0.007 (0.032)	-0.005 (0.030)	0.003 (0.029)
Benefit waiting time	-0.067* (0.037)	-0.058* (0.034)	-0.064* (0.034)
Baseline outcome		✓	✓
Strata indicators		✓	✓
Double-lasso covariates			✓
Observations	2965	2965	2965
Adj. R <sup>2</sup>	0.02	0.14	0.18

*Notes:* The table shows estimation results from a linear probability model of the intent to migrate irregularly on five treatment indicators (one for each policy type variation). Other variables (pre-treatment intent to migrate irregularly as baseline outcome, city indicators as strata, and double-lasso selected covariates) are included as indicated. The outcome is mean-centered and in units of standard deviations. The unstandardized mean reported intent is 3.8 on a scale from 0 to 10. Standard errors are clustered at the participant level. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

at similar levels as natives from 18 to 36 months is slightly smaller.

### 4.3 Heterogeneous effects

In Table 5 we report all registered heterogeneous effects.<sup>13</sup> We examine whether effects vary across levels of prior international migration intent (has the subject expressed a lot or a fair amount of interest in living in another country?), international migration histories (has the subject lived outside of Senegal in the past year?), security perceptions (does the subject feel safe where he lives?), economic conditions (has the subject's household been without enough food within the past year?), educational background (has the subject completed secondary school?), trade-specific training (has the subject completed an apprenticeship?), and family status (is the subject married or does he have children?).<sup>14</sup> Each of these variables is binary, measured prior to the conjoint experiment, and interacted with each of the treatment group indicators. We run a separate regression for each variable with respect to which we estimate heterogeneous effects.<sup>15</sup> Each column in Table 5 provides

<sup>13</sup>The question whether subjects expect their future livelihoods to be adversely affected by climate change was removed from the survey instrument prior to data collection and is therefore omitted from this analysis.

<sup>14</sup>We report separate heterogeneous effects by marital status and parenthood in Table S.4, with very similar results.

<sup>15</sup>We account for multiple hypothesis testing by calculating sharpened false discovery rate adjusted q-values (Anderson, 2008; Benjamini et al., 2006), which are displayed in the Supplementary

the results from a regression with the same outcome (standardized post-treatment irregular migration intent) and with the heterogeneity-relevant variable identified by the column header.<sup>16</sup>

We take away three main results from this analysis concerning the policy adjustments of interest. First, the effect of processing asylum claims outside of Europe stays significant across almost all subgroups and varies comparatively little. One exception to this pattern is the absence of an effect for subjects that have already migrated internationally in the recent past. In fact, recent international migrants are not responsive to any aspects of the policy prompts, with their relatively steadfast intent presumably colored primarily by personal experience.<sup>17</sup>

Second, we see substantial variation across subgroups in the effects of changes in the wait time until asylum seekers can receive benefits equivalent to those received by natives. The most prominent differences occur with respect to prior international migration intent and food insecurity. Subjects that have expressed interest in living abroad and those that have lacked food for their household are not moved by changes in how long they would have to wait to receive a relatively more generous package of benefits.<sup>18</sup>

Third, introducing a payment card to disburse benefits or shortening the time it typically takes to complete processing an asylum claim did not significantly affect irregular migration intent in the sample as whole, nor do these measures have any effects in any of the subgroups examined as part of the heterogeneous effects analysis.

---

Materials, Table S.3. All main effects hold - only the effect of an increased waiting time for native-level benefits for subjects who experienced food insufficiency turns insignificant. We comment on this below in the text.

<sup>16</sup>We do not include the pre-experiment measure of interest in irregular migration when we estimate treatment effects across levels of international migration intent, because the former generally presupposes the latter.

<sup>17</sup>Recent international migrants are not disproportionately likely or unlikely to be interested in irregular migration, so the lack of responsiveness to treatment is not due to floor or ceiling effects. We also show in Table S.4 in the Supplementary Materials that only international migration by the subject has this effect, as we do not see this pattern when we consider domestic migration, being born somewhere other than the current place of residence, or migration by other household members.

<sup>18</sup>We do not observe this pattern when we replace food insecurity with an indicator for the subject's income being below the median, as shown in Table S.4 in the Supplementary Materials, so this differential treatment response concerns the most critically poor subjects. The effect turns insignificant if we apply sharpened q-values to account for multiple hypothesis testing.

Table 5: HETEROGENEOUS TREATMENT EFFECTS

Outcome: Intent to migrate irregularly	Interacted binary covariate:						
	Intent	Migrated	Feels safe	Insufficient food	$\geq$ Secondary	Apprenticeship	Family
Higher chance of asylum	0.052 (0.062)	0.095*** (0.034)	0.120*** (0.045)	0.112** (0.050)	0.036 (0.042)	0.069 (0.045)	0.066 (0.040)
Chance x [Covariate]	0.056 (0.073)	-0.073 (0.109)	-0.072 (0.065)	-0.045 (0.065)	0.129** (0.065)	0.035 (0.064)	0.067 (0.067)
Shorter time to asylum decision	0.003 (0.071)	0.022 (0.036)	-0.012 (0.045)	0.046 (0.052)	0.018 (0.048)	0.050 (0.049)	0.019 (0.042)
Time x [Covariate]	0.033 (0.083)	0.048 (0.140)	0.088 (0.070)	-0.036 (0.069)	0.027 (0.069)	-0.040 (0.069)	0.034 (0.072)
Asylum location outside EU	-0.153* (0.079)	-0.290*** (0.043)	-0.287*** (0.058)	-0.317*** (0.065)	-0.264*** (0.055)	-0.288*** (0.059)	-0.319*** (0.051)
Location x [Covariate]	-0.138 (0.093)	0.210 (0.165)	0.017 (0.082)	0.067 (0.084)	-0.028 (0.082)	0.025 (0.082)	0.138 (0.085)
Payment card	-0.097 (0.059)	0.008 (0.031)	0.040 (0.041)	-0.026 (0.046)	0.030 (0.040)	-0.052 (0.040)	0.029 (0.037)
Payment x [Covariate]	0.110 (0.068)	-0.078 (0.112)	-0.077 (0.059)	0.050 (0.060)	-0.054 (0.058)	0.103* (0.058)	-0.088 (0.061)
Benefits after 36 months	-0.270*** (0.071)	-0.062* (0.035)	-0.075 (0.046)	-0.152*** (0.051)	-0.077* (0.045)	-0.033 (0.052)	-0.051 (0.042)
Benefit x [Covariate]	0.235*** (0.082)	-0.021 (0.143)	0.027 (0.068)	0.150** (0.068)	0.041 (0.068)	-0.048 (0.068)	-0.040 (0.071)
[Covariate]	0.247** (0.118)	-0.204 (0.202)	-0.077 (0.094)	0.073 (0.097)	-0.221** (0.095)	0.104 (0.094)	0.021 (0.141)
Baseline outcome		✓	✓	✓	✓	✓	✓
Strata indicators	✓	✓	✓	✓	✓	✓	✓
Double-lasso covariates	✓	✓	✓	✓	✓	✓	✓
Observations	2965	2965	2965	2962	2965	2965	2965
Adj. R <sup>2</sup>	0.09	0.18	0.18	0.18	0.18	0.18	0.18
p-value (main + interaction): Asylum chance	0.01	0.84	0.30	0.11	0.00	0.02	0.01
p-value (main + interaction): Decision time	0.40	0.60	0.16	0.81	0.37	0.84	0.36
p-value (main + interaction): Asylum location	0.00	0.62	0.00	0.00	0.00	0.00	0.01
p-value (main + interaction): Payment card	0.70	0.51	0.38	0.53	0.58	0.24	0.23
p-value (main + interaction): Benefit waiting time	0.39	0.55	0.34	0.96	0.48	0.07	0.11

*Notes:* The table shows estimation results from a linear probability model of the intent to migrate irregularly on five treatment indicators (one for each policy type variation) interacted with binary pre-treatment covariates. We also include pre-treatment intent to migrate irregularly as baseline outcome (omitted for heterogeneity by intent to migrate internationally), city indicators as strata, and double-lasso selected covariates. The outcome is mean-centered and in units of standard deviations. The unstandardized mean reported intent is 3.8 on a scale from 0 to 10. Covariates used for interactions are whether the participant would like to live in another country, either seasonally or for a longer time, “lots” or “a fair amount” (INTENT); lived for at least 4 weeks outside of Senegal in the past 12 months (MIGRATED); feels safe where they live and without fear of harmful consequences when stating opinion in public or standing in for rights (FEELS SAFE); has been without enough food to feed household in past 12 months (INSUFFICIENT FOOD); has completed at least secondary school as highest level of formal education ( $\geq$  SECONDARY); has completed an apprenticeship, i.e. formal or informal training for a trade in a work setting under the guidance of an experienced practitioner (APPRENTICESHIP); and is currently married and/or has children (FAMILY). Standard errors are clustered at the participant level. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## 5 DISCUSSION AND CONCLUSION

In this paper, we document knowledge concerning the European asylum system and examine the impact of different destination country policies on irregular migration intent among potential migrants in urban Senegal. We show substantial variation in subjects' knowledge of European asylum procedures, even among those who say they are likely to migrate to Europe in the next year. While some subjects appear well-informed, many others do not, which should limit the average impacts that we can expect to be associated with changes in destination country policies. Only if potential migrants are aware of their destination's current asylum policies can changes in those policies factor in their decision process and lead to fewer people deciding to leave. Therefore, our descriptive evidence leaves us generally cautious about the extent to which policymakers will be able to use harsh asylum rules to deter migration.

Through a conjoint experiment, we then estimate the extent to which intentions to migrate irregularly are responsive to different asylum rules, when subjects are aware of the relevant policy alternatives. We examine four policy measures, which mirror decisions taken by German political leaders at the end of 2023, and find that two significantly affect migration intent. The largest and most robust reduction in intent to migrate is associated with a relocation of the asylum process to a country outside of Europe, such as Rwanda or Tunisia. Increasing the waiting time until an asylum seeker can receive native-level benefits also reduces migration intent. Reducing the time to an asylum decision by three months or changing the payment mode for government benefits does not significantly alter irregular migration intent.

While these estimates from a conjoint experiment involving hypothetical policy scenarios should not be taken at face value to predict real migration flows following actual policy changes, they give some indication of potential impacts and the relative importance of different motives for migration. For example, the hotly debated introduction of a payment card for asylum seekers in Germany, which replaces cash hand-outs to migrants, does not reduce migration intent in our experiment. Politicians had expressed hope that the card would not only reduce the administrative burden on local authorities, but also make it more difficult to send money to origin countries. This could make migration less attractive for people who migrate mainly for economic reasons. However, we see no indication that potential asylum seekers care much about the payment mode for benefits when considering irregular migration.

This is perhaps not surprising, given that the vast majority of individuals do

not choose to try to reach Germany or any other particular country because of government benefits. When asked about their preferred migration destination in Europe and *all* of the reasons for their choice, only 11 percent of subjects say government benefits play a role, far below reasons like work opportunities and the number of Senegalese or other migrants already in a given destination country. Of course the results of our study cannot speak for the full universe of potential migrants, but they do provide insights for one particular group of potential migrants: young, male migrants from Senegal. We believe that this group belongs precisely to the group of potential migrants that are meant to be deterred by the kind of policy measures at the center of our study. In Germany, Senegal is considered a “safe country of origin” and most migrants are presumed to migrate primarily out of economic reasons. At the same time, they do not necessarily represent the overall population of the target group: For example, migrants from sub-Saharan Africa living in Germany do expose higher employment rates in comparison to migrants from other important origin countries like Iran, Syria, or Afghanistan. This could imply that Senegalese will be less sensitive to asylum policy changes, because they are less likely to anticipate relying on benefits. We suggest caution when extrapolating from our survey population to others.

Finally, we see four important caveats in interpreting the large effect of relocating the asylum process to outside of the EU. First, as the discussions and court proceedings around the United Kingdom’s efforts to relocate asylum seekers to Rwanda and Italy’s attempts to outsource the decision process to Albania show, considerable questions remain about the legal feasibility of such policies. It is at this stage not clear how European countries can provide sufficient assurance that human rights obligations arising from the Geneva Refugee Convention and the European Convention on Human Rights will be met in a third country. Second, beyond treaty constraints, offshoring asylum processes raises fundamental political and normative questions that must be addressed as such, and to which this short paper does not speak. A finding of potential efficacy does not resolve questions about the justifiability of means relative to the desirability of particular ends. Third, migration flows and routes are highly dynamic. Even if opening non-EU processing sites reduces asylum claims initially, new migration routes and processes will emerge, become entrenched, and perhaps ultimately lead to even more claims being filed, given that non-EU sites are relatively more accessible. Fourth, this greater accessibility is sometimes cited as a reason why offshoring could in fact benefit legitimate asylum claimants, who could file applications without having to embark on extremely dangerous journeys across rough seas. Offshoring could be a boon for those likely

to be granted protection, all while deterring economic migrants. In our study, we do not see any evidence of this kind of differentiation in the estimated deterrent effect. Subjects that feel unsafe in Senegal and live in fear of harmful consequences when stating opinions in public or standing in for their rights are just as likely to be deterred as those that do not. It is beyond this study to answer the question of how offshoring should be judged politically and normatively. Our study highlights, though, that offshoring is a pertinent question in need of serious debate to make sure that Europe fulfills the common asylum system's foundational principle, namely that the EU serves as an "area of protection for people fleeing persecution or serious harm in their country of origin" ([European Commission, 2024](#)).

## REFERENCES

- Africanews.** 2023. “Senegal: President orders emergency measures to combat illegal emigration.” *Africanews*, <https://www.africanews.com/2023/11/09/senegal-president-orders-emergency-measures-to-combat-illegal> (last accessed February 28, 2024).
- Alrababah, Ala, Daniel Masterson, Marine Casalis, Dominik Hangartner, and Jeremy Weinstein.** 2023. “The dynamics of refugee return: Syrian refugees and their migration intentions.” *British Journal of Political Science* 53 (4): 1108–1131.
- Anderson, Michael L.** 2008. “Multiple inference and gender differences in the effects of early intervention: A reevaluation of the Abecedarian, Perry Preschool, and Early Training projects.” *Journal of the American Statistical Association* 103 (484): 1481–1495.
- Bah, Tijan L., Catia Batista, Flore Gubert, and David McKenzie.** 2023. “Can information and alternatives to irregular migration reduce “backway” migration from The Gambia?” *Journal of Development Economics* 165 103153.
- Beber, Bernd, and Alexandra Scacco.** 2022. *The myth of the misinformed migrant? Survey insights from Nigeria’s irregular migration epicenter*. Ruhr Economic Papers #957, RWI - Leibniz-Institut für Wirtschaftsforschung.
- Becker, Malte, Finja Krüger, and Tobias Stoehr.** 2024. “What Drives Attitudes Toward Immigrants in Sub-Saharan Africa? Evidence from Uganda and Senegal.” *SSRN Electronic Journal*.
- Beine, Michel, Simone Bertoli, and Jesús Fernández-Huertas Moraga.** 2016. “A practitioners’ guide to gravity models of international migration.” *The World Economy* 39 (4): 496–512.
- Benjamini, Yoav, Abba M. Krieger, and Daniel Yekutieli.** 2006. “Adaptive linear step-up procedures that control the false discovery rate.” *Biometrika* 93 (3): 491–507.
- Bund und Länder.** 2023. “Flüchtlingspolitik – Humanität und Ordnung. Besprechung des Bundeskanzlers mit den Regierungschefinnen und Regierungschefs der Länder am 6. November 2023.” <https://www.bundesregierung.de/resource/blob/975226/2235232/697bfb257d9c4f697938a53c08b18812/2023-11-07-mpk-fluechtlingspolitik-data.pdf?download=1> (last accessed February 28, 2024).
- Bundesagentur für Arbeit.** 2024. “Migrationsmonitor, Januar 2024 – Deutschland.” [https://statistik.arbeitsagentur.de/SiteGlobals/Forms/Suche/Einzelheftsuche\\_Formular.html?nn=1479694&topic\\_f=migrationsmonitor](https://statistik.arbeitsagentur.de/SiteGlobals/Forms/Suche/Einzelheftsuche_Formular.html?nn=1479694&topic_f=migrationsmonitor) (last accessed February 28, 2024).



- Bundesamt für Migration und Flüchtlinge.** 2021. “Schriftlicher Asylerstantrag gemäß § 14 Abs. 2 AsylG.” [https://www.bamf.de/SharedDocs/Anlagen/DE/AsylFluechtlingsschutz/Asylverfahren/asylerstantrag-schriftlich.pdf?\\_\\_blob=publicationFile&v=7](https://www.bamf.de/SharedDocs/Anlagen/DE/AsylFluechtlingsschutz/Asylverfahren/asylerstantrag-schriftlich.pdf?__blob=publicationFile&v=7) (last accessed February 28, 2024).
- Bundesamt für Migration und Flüchtlinge.** 2023a. “Asylgeschäftsstatistik (01-12/22).” <https://www.bamf.de/SharedDocs/Anlagen/DE/Statistik/Asylgeschaeftsstatistik/hkl-antrags-entscheidungs-bestandsstatistikl-kumuliert-2022.html> (last accessed February 28, 2024).
- Bundesamt für Migration und Flüchtlinge.** 2023b. “Asylgeschäftsstatistik (01-12/23).” <https://www.bamf.de/SharedDocs/Anlagen/DE/Statistik/Asylgeschaeftsstatistik/hkl-antrags-entscheidungs-bestandsstatistikl-kumuliert-2023.html> (last accessed February 28, 2024).
- Bundesamt für Migration und Flüchtlinge.** 2024. “Sichere Herkunftsstaaten.” <https://www.bamf.de/DE/Themen/AsylFluechtlingsschutz/Sonderverfahren/SichereHerkunftsstaaten/sichereherkunftsstaaten-node.html> (last accessed February 28, 2024).
- Bundesministerium für Arbeit und Soziales.** 2024. “Arbeitsmarktzugang für Geflüchtete.” <https://www.bmas.de/DE/Arbeit/Migration-und-Arbeit/Flucht-und-Aysl/Arbeitsmarktzugang-fuer-Gefluechtete/arbeitsmarktzugang-fuer-gefluechtete.html> (last accessed February 28, 2024).
- Deutscher Bundestag.** 2023. “Wissenschaftliche Dienste, Sachstand WD 6 - 3000 - 102/22, Aspekte der sozialen Sicherung bei Zuwanderung in ausgewählten europäischen Ländern.” <https://www.bundestag.de/resource/blob/945298/83e27e78a5b6edd3cbb681b035ed1e4a/WD-6-102-22-pdf-data.pdf> (last accessed February 28, 2024).
- Di Iasio, Valentina, and Jackline Wahba.** 2023. “The determinants of refugees’ destinations: Where do refugees locate within the EU?” *SSRN Electronic Journal*.
- EU Agency for Asylum.** 2024a. “Key figures on international protection in EU+ countries.” <https://euaa.europa.eu/key-figures-international-protection-in-EU> (last accessed February 28, 2024).
- EU Agency for Asylum.** 2024b. “Latest Asylum Trends.” <https://euaa.europa.eu/latest-asylum-trends-asylum> (last accessed February 28, 2024).
- EU Agency for Asylum.** 2024c. “Ukraine crisis: Data and analysis.” <https://euaa.europa.eu/ukraine-crisis-data-and-analysis> (last accessed February 28, 2024).

- European Commission.** 2024. “Common European Asylum System.” [https://home-affairs.ec.europa.eu/policies/migration-and-asylum/common-european-asylum-system\\_en](https://home-affairs.ec.europa.eu/policies/migration-and-asylum/common-european-asylum-system_en) (last accessed February 28, 2024).
- Eurostat.** 2024a. “Annual asylum statistics.” [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Asylum\\_statistics&oldid=558844](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Asylum_statistics&oldid=558844) (last accessed February 28, 2024).
- Eurostat.** 2024b. “Asylum applicants by type, citizenship, age and sex - annual aggregated data (migr\_asyappctza).” [https://ec.europa.eu/eurostat/databrowser/view/migr\\_asyappctza\\_\\_custom\\_8162183/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/migr_asyappctza__custom_8162183/default/table?lang=en) (last accessed February 28, 2024).
- Eurostat.** 2024c. “Final decisions in appeal or review on applications by type of decision, citizenship, age and sex - annual data (migr\_asydcfina).” [https://ec.europa.eu/eurostat/data/database?node\\_code=migr](https://ec.europa.eu/eurostat/data/database?node_code=migr) (last accessed February 28, 2024).
- Eurostat.** 2024d. “First instance decisions on applications by type of decision, citizenship, age and sex - annual aggregated data (migr\_asydcfst).” [https://ec.europa.eu/eurostat/data/database?node\\_code=migr](https://ec.europa.eu/eurostat/data/database?node_code=migr) (last accessed February 28, 2024).
- Frohnweiler, Sarah, Bernd Beber, and Cara Ebert.** 2022. *Information frictions, belief updating and internal migration: Evidence from Ghana and Uganda*. Ruhr Economic Papers #987, RWI - Leibniz-Institut für Wirtschaftsforschung.
- Frohnweiler, Sarah, Bernd Beber, and Cara Ebert.** 2024. “Delayed effects on migration intentions in an information provision experiment in Ghana.” *Revue D’Économie Du Développement*.
- Frontex.** 2024. “Significant rise in irregular border crossings in 2023, highest since 2016.” <https://www.frontex.europa.eu/media-centre/news/news-release/significant-rise-in-irregular-border-crossings-in-2023-highest-since> (last accessed February 28, 2024).
- Hainmueller, Jens, Daniel J. Hopkins, and Teppei Yamamoto.** 2014. “Causal inference in conjoint analysis: Understanding multidimensional choices via stated preference experiments.” *Political Analysis* 22 (1): 1–30.
- Hatton, Timothy J.** 2016. “Refugees, asylum seekers, and policy in OECD countries.” *American Economic Review* 106 (5): 441–445.
- Hodali, Diana, and Astrid Prange de Oliveira.** 2018. “Asylum benefits in the EU: A comparison.” *Deutsche Welle*, <https://www.dw.com/en/asylum-benefits-in-the-eu-how-member-states-compare/a-44298599> (last accessed February 28, 2024).

- Jeannet, Anne-Marie, Tobias Heidland, and Martin Ruhs.** 2021. “What asylum and refugee policies do Europeans want? Evidence from a cross-national conjoint experiment.” *European Union Politics* 22 (3): 353–376.
- Morgenstern, Sandra.** 2023. “(How) do information campaigns influence migration decisions?” *Journal of Experimental Political Science* 1–13.
- Statista.** 2024a. “Gesamtzahl der offiziell gezählten Kriegsflüchtlinge aus der Ukraine in Deutschland von März 2022 bis Dezember 2023.” <https://de.statista.com/statistik/daten/studie/1294820/umfrage/kriegsfluechtlinge-aus-der-ukraine-in-deutschland/> (last accessed February 28, 2024).
- Statista.** 2024b. “Welche Partei würden Sie wählen, wenn am nächsten Sonntag Bundestagswahl wäre?.” <https://de.statista.com/statistik/daten/studie/30321/umfrage/sonntagsfrage-zur-bundestagswahl-nach-einzelnen-instituten/> (last accessed February 28, 2024).
- Tagesschau.** 2023. “‘Gesichert extremistisch’ - was folgt daraus?.” <https://www.tagesschau.de/inland/innenpolitik/verfassungsschutz-beobachtung-102.html> (last accessed February 28, 2024).
- Tagesschau.** 2024. “JA darf als extremistisch eingestuft werden.” <https://www.tagesschau.de/inland/innenpolitik/junge-alternative-verfassungsschutz-102.html> (last accessed February 28, 2024).
- Tjaden, Jasper, Daniel Auer, and Frank Laczko.** 2019. “Linking migration intentions with flows: Evidence and potential use.” *International Migration* 57 (1): 36–57.
- Tjaden, Jasper, and Felipe Alexander Dunsch.** 2021. “The effect of peer-to-peer risk information on potential migrants – Evidence from a randomized controlled trial in Senegal.” *World Development* 145 105488.
- Tjaden, Jasper, and Horace Gninafon.** 2022. “Raising awareness about the risk of irregular migration: Quasi-experimental evidence from Guinea.” *Population and Development Review*.
- Turkoglu, Oguzhan, and Sigrid Weber.** 2023. “When to go? A conjoint experiment on social networks, violence, and forced migration decisions in eastern and southeastern Turkey.” *International Studies Quarterly* 67 (2): squad033.
- United Nations, Department of Economic and Social Affairs, Population Division.** 2022. “World Population Prospects: The 2022 Revision. Total population by sex.” <https://population.un.org/dataportal/data/indicators/49/locations/686/start/1990/end/2024/table/pivotbylocation?df=2a4a8d2f-2d99-453f-89a1-bcfdef5a034a> (last accessed February 28, 2024).

- UNODC.** 2013. “Transnational organized crime in West Africa: A threat assessment.” Technical report, [https://www.unodc.org/documents/data-and-analysis/tocta/West\\_Africa\\_TOCTA\\_2013\\_EN.pdf](https://www.unodc.org/documents/data-and-analysis/tocta/West_Africa_TOCTA_2013_EN.pdf) (last accessed February 28, 2024).
- Zhao, Anqi, and Peng Ding.** 2022. “To Adjust or not to Adjust? Estimating the Average Treatment Effect in Randomized Experiments with Missing Covariates.” *Journal of the American Statistical Association* 1–11.
- Zhirkov, Kirill, and Rachel Smilan-Goldstein.** 2023. “U.S. sanctuary policies and Mexicans’ migration preferences: A conjoint-experimental study.” *International Migration Review*.
- Zimmermann, Diana.** 2023. “Migrationskrise: Das sind die Stellschrauben.” <https://www.zdf.de/nachrichten/politik/deutschland/migration-treffen-kanzleramt-asylverfahren-100.html> (last accessed February 28, 2024).

## SUPPLEMENTARY MATERIALS

### S.1 Experimental script, visual aid, and balance table

#### 1. Introduction

- “We want to talk to you about hypothetical policies in a destination country in Europe related to irregular migrants. We will now show you three sets of policies that this European country could have in place. Given each set of policies, please indicate how interested you would be in trying to migrate irregularly (traveling without prior approval) to this country? [0 = Not at all. 10 = Very.]”

#### 2. Policy set 1

- “Enumerator: Mark these attributes on the printed sheet to show the respondent! Take a photo of the printed sheet”
- “Given this set of policies, how interested would you be in trying to migrate irregularly to this country? [0 = Not at all. 10 = Very.]”

#### 3. Policy set 2

- “Enumerator: Mark these attributes on the printed sheet to show the respondent! Take a photo of the printed sheet”
- “Given this set of policies, how interested would you be in trying to migrate irregularly to this country? [0 = Not at all. 10 = Very.]”



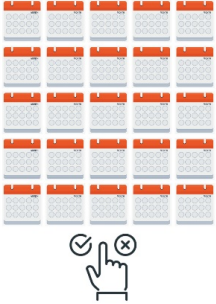
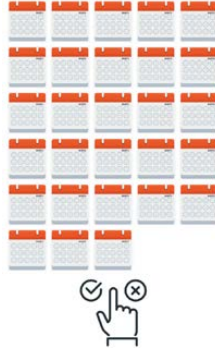





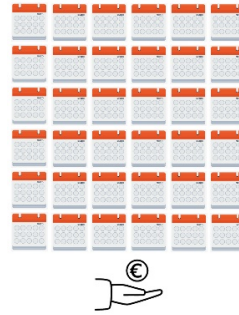
#### 4. Policy set 3

- “Enumerator: Mark these attributes on the printed sheet to show the respondent! Take a photo of the printed sheet”
- “Given this set of policies, how interested would you be in trying to migrate irregularly to this country? [0 = Not at all. 10 = Very.]”

#### 5. Debrief

- “[Enumerator: READ the following to the subject. You are required to stay on this screen and READ this text for at least thirty seconds:] The scenarios presented are hypothetical. Please inform yourself carefully about the actual numbers and processes if you consider migrating! Irregular migration across the desert or by boat across the sea is extremely dangerous! The journey can go on for weeks or months, and many people, including many men like you, die along the way. And among those that make it to Europe, most are not allowed to stay or work and are legally required to leave. Again, think carefully and inform yourself before attempting to migrate irregularly.”

Figure S.1: ICONS FOR ATTRIBUTE LEVELS

Attribut	Valeur 1	Valeur 2
Chance que la demande de séjour après une arrivée irrégulière soit acceptée :	<p><b>5 sur 100</b></p> 	<p><b>30 sur 100</b></p> 
Délai de prise de décision concernant la demande :	<p><b>25 mois</b></p> 	<p><b>28 mois</b></p> 
Lieu de la procédure de demande :	<p><b>Demande à l'arrivée en Europe dans le pays de destination et attente de la décision</b></p> 	<p><b>Demande en dehors de l'Europe, par exemple dans un pays africain tel que le Rwanda ou la Tunisie, et attente de la décision</b></p> 
Prestations gouvernementales mensuelles pour couvrir les besoins de base pendant le processus de demande dans le pays de destination (jusqu'à environ 410 euros ou 270 000 CFA) :	<p><b>Payé en espèces</b></p> 	<p><b>Payé avec une carte de paiement prépayée</b></p> 
Période d'attente pour bénéficier des prestations gouvernementales de base au même niveau que les autochtones (environ 500 euros ou 330 000 CFA) :	<p><b>18 mois</b></p> 	<p><b>36 mois</b></p> 







## S.2 Additional regression results

Table S.2: RESULTS OF THE CONJOINT EXPERIMENT BY ENGAGEMENT

	Timestamps		Display duration (audit)	
	$\geq 1\text{min}$	$< 1\text{ min}$	$\geq 5\text{min}$	$< 5\text{ min}$
Chance of asylum	0.099** (0.042)	0.045 (0.057)	0.096*** (0.034)	-0.024 (0.104)
Time to asylum decision	0.059 (0.044)	-0.020 (0.053)	0.044 (0.036)	-0.075 (0.094)
Location of asylum application	-0.281*** (0.048)	-0.242*** (0.060)	-0.279*** (0.043)	-0.241** (0.105)
Benefit payment mode	0.023 (0.040)	-0.068 (0.049)	0.000 (0.032)	0.000 (0.089)
Benefit waiting time	-0.064 (0.042)	-0.061 (0.055)	-0.067* (0.036)	-0.118 (0.102)
Baseline outcome	✓	✓	✓	✓
Strata indicators	✓	✓	✓	✓
Double lasso covariates	✓	✓	✓	✓
Observations	1836	1129	2665	300
Adj. R <sup>2</sup>	0.17	0.19	0.17	0.29
Outcome mean	0.00	0.00	0.00	0.00
Outcome mean, not standardized	3.80	3.80	3.80	3.80

*Notes:* The table reports results from the conjoint experiment when splitting the sample based on compliance measured in terms of survey item durations. The first two columns use timestamps generated for each item when it is first opened; the latter two columns use total display times, which measure how long an item was displayed on a tablet's screen. Total display times generally exceed durations based on timestamps, because of back-and-forth swiping.

Table S.3: SHARPENED Q-VALUES FOR HETEROGENEITY ANALYSIS

	(1)	(2)	(3)	(4)
	Coef	p-value	q-val	turns insignificant
<b>Intent</b>				
Higher chance of asylum	0.052	0.402	0.732	.
Chance X Yes	0.056	0.442	0.770	.
Shorter time to asylum decision	0.003	0.964	1.000	.
Time X Yes	0.033	0.692	0.943	.
Asylum location outside EU	-0.153	0.054	0.210	1.000
Location X Yes	-0.138	0.140	0.411	.
Payment Card	-0.097	0.101	0.328	.
Pament X Yes	0.110	0.107	0.328	.
Benefits after 36 months	-0.270	0.000	0.002	.
Benefit x Yes	0.235	0.004	0.028	.
p-val (main + interaction): Asylum chance	.	0.006	0.035	.
p-val (main + interaction): Decision time	.	0.395	0.732	.
p-val (main + interaction): Asylum location	.	0.000	0.001	.
p-val (main + interaction): Payment Card	.	0.699	0.943	.
p-val (main + interaction): Benefit waiting time	.	0.395	0.732	.
<b>Migrated</b>				
Higher chance of asylum	0.095	0.005	0.031	.
Chance X Yes	-0.073	0.501	0.816	.
Shorter time to asylum decision	0.022	0.528	0.829	.
Time X Yes	0.048	0.732	0.978	.
Asylum location outside EU	-0.290	0.000	0.001	.
Location X Yes	0.210	0.204	0.504	.
Payment Card	0.008	0.804	1.000	.
Pament X Yes	-0.078	0.487	0.795	.
Benefits after 36 months	-0.062	0.074	0.284	1.000
Benefit x Yes	-0.021	0.885	1.000	.
p-val (main + interaction): Asylum chance	.	0.838	1.000	.
p-val (main + interaction): Decision time	.	0.604	0.878	.
p-val (main + interaction): Asylum location	.	0.621	0.897	.
p-val (main + interaction): Payment Card	.	0.514	0.829	.
p-val (main + interaction): Benefit waiting time	.	0.550	0.847	.
<b>Feels safe</b>				
Higher chance of asylum	0.120	0.008	0.041	.
Chance X Yes	-0.072	0.263	0.623	.
Shorter time to asylum decision	-0.012	0.793	1.000	.
Time X Yes	0.088	0.210	0.511	.
Asylum location outside EU	-0.287	0.000	0.001	.
Location X Yes	0.017	0.841	1.000	.
Payment Card	0.040	0.330	0.721	.
Pament X Yes	-0.077	0.189	0.482	.
Benefits after 36 months	-0.075	0.104	0.328	.
Benefit x Yes	0.027	0.692	0.943	.
p-val (main + interaction): Asylum chance	.	0.302	0.704	.
p-val (main + interaction): Decision time	.	0.158	0.440	.
p-val (main + interaction): Asylum location	.	0.000	0.001	.
p-val (main + interaction): Payment Card	.	0.377	0.732	.
p-val (main + interaction): Benefit waiting time	.	0.342	0.732	.

*Notes:* The table displays sharpened false discovery rate adjusted q-values following [Anderson \(2008\)](#) and [Benjamini et al. \(2006\)](#). The first two columns display the original coefficients and p-values from Section 4. Column (3) displays sharpened q-values. Column (4) indicates coefficients with significant p-values and insignificant q-values.

TABLE S.3 CONTINUED

	(1) Coef	(2) p-value	(3) q-val	(4) turns insignificant
<b>Insufficient food</b>				
Higher chance of asylum	0.112	0.024	0.108	1.000
Chance X Yes	-0.045	0.486	0.795	.
Shorter time to asylum decision	0.046	0.376	0.732	.
Time X Yes	-0.036	0.607	0.878	.
Asylum location outside EU	-0.317	0.000	0.001	.
Location X Yes	0.067	0.422	0.735	.
Payment Card	-0.026	0.573	0.861	.
Pament X Yes	0.050	0.404	0.732	.
Benefits after 36 months	-0.152	0.003	0.021	.
Benefit x Yes	0.150	0.027	0.115	1.000
p-val (main + interaction): Asylum chance	.	0.105	0.328	.
p-val (main + interaction): Decision time	.	0.814	1.000	.
p-val (main + interaction): Asylum location	.	0.000	0.001	.
p-val (main + interaction): Payment Card	.	0.531	0.829	.
p-val (main + interaction): Benefit waiting time	.	0.957	1.000	.
<b>At least secondary</b>				
Higher chance of asylum	0.036	0.392	0.732	.
Chance X Yes	0.129	0.046	0.187	1.000
Shorter time to asylum decision	0.018	0.714	0.963	.
Time X Yes	0.027	0.697	0.943	.
Asylum location outside EU	-0.264	0.000	0.001	.
Location X Yes	-0.028	0.734	0.978	.
Payment Card	0.030	0.449	0.770	.
Pament X Yes	-0.054	0.358	0.732	.
Benefits after 36 months	-0.077	0.084	0.301	1.000
Benefit x Yes	0.041	0.549	0.847	.
p-val (main + interaction): Asylum chance	.	0.001	0.008	.
p-val (main + interaction): Decision time	.	0.367	0.732	.
p-val (main + interaction): Asylum location	.	0.000	0.001	.
p-val (main + interaction): Payment Card	.	0.582	0.861	.
p-val (main + interaction): Benefit waiting time	.	0.484	0.795	.

*Notes:* The table displays sharpened false discovery rate adjusted q-values following [Anderson \(2008\)](#) and [Benjamini et al. \(2006\)](#). The first two columns display the original coefficients and p-values from Section 4. Column (3) displays sharpened q-values. Column (4) indicates coefficients with significant p-values and insignificant q-values.

TABLE S.3 CONTINUED

	(1) Coef	(2) p-value	(3) q-val	(4) turns insignificant
<b>Apprenticeship</b>				
Higher chance of asylum	0.069	0.128	0.383	.
Chance X Yes	0.035	0.588	0.861	.
Shorter time to asylum decision	0.050	0.309	0.704	.
Time X Yes	-0.040	0.560	0.856	.
Asylum location outside EU	-0.288	0.000	0.001	.
Location X Yes	0.025	0.757	1.000	.
Payment Card	-0.052	0.189	0.482	.
Pament X Yes	0.103	0.078	0.287	1.000
Benefits after 36 months	-0.033	0.526	0.829	.
Benefit x Yes	-0.048	0.475	0.795	.
p-val (main + interaction): Asylum chance	.	0.024	0.108	1.000
p-val (main + interaction): Decision time	.	0.841	1.000	.
p-val (main + interaction): Asylum location	.	0.000	0.001	.
p-val (main + interaction): Payment Card	.	0.238	0.560	.
p-val (main + interaction): Benefit waiting time	.	0.065	0.251	1.000
<b>Family</b>				
Higher chance of asylum	0.066	0.100	0.328	.
Chance X Yes	0.067	0.315	0.704	.
Shorter time to asylum decision	0.019	0.649	0.931	.
Time X Yes	0.034	0.638	0.925	.
Asylum location outside EU	-0.319	0.000	0.001	.
Location X Yes	0.138	0.105	0.328	.
Payment Card	0.029	0.423	0.735	.
Pament X Yes	-0.088	0.151	0.435	.
Benefits after 36 months	-0.051	0.229	0.560	.
Benefit x Yes	-0.040	0.576	0.861	.
p-val (main + interaction): Asylum chance	.	0.013	0.067	.
p-val (main + interaction): Decision time	.	0.358	0.732	.
p-val (main + interaction): Asylum location	.	0.008	0.041	.
p-val (main + interaction): Payment Card	.	0.233	0.560	.
p-val (main + interaction): Benefit waiting time	.	0.113	0.340	.

*Notes:* The table displays sharpened false discovery rate adjusted q-values following [Anderson \(2008\)](#) and [Benjamini et al. \(2006\)](#). The first two columns display the original coefficients and p-values from Section 4. Column (3) displays sharpened q-values. Column (4) indicates coefficients with significant p-values and insignificant q-values.

Table S.4: HETEROGENEOUS EFFECTS BY FAMILY STATUS, MIGRATION EXPERIENCE, AND INCOME

Outcome: Intent to migrate irregularly	Interacted binary covariate:					
	Married	Has children	Domestic, 1y	Born elsewhere	HH member irregular, 1y	Below median income
Higher chance of asylum	0.070*	0.068*	0.104***	0.065*	0.089***	0.035
	(0.038)	(0.039)	(0.037)	(0.037)	(0.033)	(0.048)
Chance x [Covariate]	0.065	0.067	-0.057	0.103	0.010	0.064
	(0.070)	(0.068)	(0.073)	(0.076)	(0.129)	(0.065)
Shorter time to asylum decision	0.035	0.023	-0.012	0.011	0.018	-0.018
	(0.040)	(0.041)	(0.039)	(0.039)	(0.036)	(0.052)
Time x [Covariate]	-0.021	0.030	0.154*	0.071	0.112	0.059
	(0.077)	(0.074)	(0.080)	(0.083)	(0.128)	(0.071)
Asylum location outside EU	-0.312***	-0.313***	-0.257***	-0.289***	-0.257***	-0.201***
	(0.049)	(0.050)	(0.049)	(0.047)	(0.043)	(0.062)
Location x [Covariate]	0.143	0.129	-0.078	0.044	-0.223	-0.106
	(0.089)	(0.087)	(0.090)	(0.097)	(0.152)	(0.085)
Payment card	0.020	0.029	0.010	-0.000	0.006	-0.037
	(0.035)	(0.036)	(0.035)	(0.033)	(0.031)	(0.042)
Payment x [Covariate]	-0.074	-0.097	-0.030	0.007	-0.056	0.047
	(0.064)	(0.062)	(0.064)	(0.071)	(0.109)	(0.059)
Benefits after 36 months	-0.046	-0.055	-0.086**	-0.081**	-0.058*	-0.073
	(0.040)	(0.041)	(0.040)	(0.039)	(0.035)	(0.049)
Benefit x [Covariate]	-0.071	-0.026	0.080	0.070	-0.080	0.037
	(0.074)	(0.073)	(0.073)	(0.081)	(0.132)	(0.070)
[Covariate]	-0.080	0.084	-0.124	-0.237**	0.246	-0.146
	(0.124)	(0.133)	(0.102)	(0.111)	(0.169)	(0.101)
Baseline outcome	✓	✓	✓	✓	✓	✓
Strata indicators	✓	✓	✓	✓	✓	✓
Double lasso covariates	✓	✓	✓	✓	✓	✓
Observations	2965	2956	2965	2965	2965	2791
Adj. R <sup>2</sup>	0.18	0.17	0.18	0.18	0.18	0.17
p-value (main + interaction): Asylum chance	0.02	0.02	0.46	0.01	0.43	0.03
p-value (main + interaction): Decision time	0.84	0.39	0.04	0.26	0.29	0.40
p-value (main + interaction): Asylum location	0.02	0.01	0.00	0.00	0.00	0.00
p-value (main + interaction): Payment card	0.32	0.19	0.71	0.91	0.63	0.81
p-value (main + interaction): Benefit waiting time	0.06	0.17	0.93	0.88	0.28	0.48

*Notes:* The table shows estimation results from a linear probability model of the intent to migrate irregularly on five treatment indicators (one for each policy type variation) interacted with binary pre-treatment covariates. We also include pre-treatment intent to migrate irregularly as baseline outcome, city indicators as strata, and double-lasso selected covariates. The outcome is mean-centered and in units of standard deviations. The unstandardized mean reported intent is 3.8 on a scale from 0 to 10. Covariates used for interactions are whether the participant is currently married, monogamously or polygamously (MARRIED); has one or more children (HAS CHILDREN); has lived for at least 4 weeks in the past 12 months in a place in Senegal other than his current city (DOMESTIC, 1Y); was born somewhere other than his current city (BORN ELSEWHERE); has a household member who left Senegal to go to Europe by boat or through the desert in the past 12 months (HH MEMBER IRREGULAR, 1Y); and earned less than the median in the previous month across all personal economic activities (BELOW MEDIAN INCOME). Standard errors are clustered at the participant level. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01